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ABSTRACT OF THE DISCLOSURE

A directional microphone assembly suitable for subsurface mounting. A directional pickup pattern is developed from the outputs of a plurality of omnidirectional microphone elements mounted in an assembly behind a surface such that their acoustic excitation comes from the opposite side of the surface through small openings in the surface. The openings may have varying dimensions and may be covered with acoustically semi-transparent material without significantly degrading the assembly frequency response or polar pattern. Precautions are taken to ensure design robustness considering practical microphone element characteristics and potential high levels of low-frequency excitation.

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